

Education/Training			
Institution and Location	Degree	Years (s)	Field of study
Dept. of Neuroscience "Bernard B. Brodie", University of Cagliari, Italy	Specialist	2007-2010	Pharmacology
Dept. of Neuroscience "Bernard B. Brodie", University of Cagliari, Italy	PhD	2003-2007	Neuroscience
University of Cagliari, Italy	MS	1995-2002	Biological Sciences
Lyceum L.B. Alberti, Italy	BS	1990-1995	General Sciences

## A. Previous positions

2024-present. Associate Professor of Pharmacology - GSD, 05/G1; SSD BIOS-11/A - University of Cagliari, Dept. of Biomedical Sciences.

2021-2024. Research Assistant Professor, TDB - Tenure Track; full time (art. 24 c.3-b L. 240/10) - University of Cagliari, Dept. of Biomedical Sciences.

2015-2020. Research Assistant Professor, TDA - full time (art. 24 c.3-b L. 240/10) - University of Cagliari, Dept. of Biomedical Sciences.

2019. Visiting Scientist at the University of Utah, College of Pharmacy, Salt Lake City (USA).

2012-2014. Research Fellow, University of Cagliari, Dept. Of Biomedical Sciences, University of Cagliari (Italy).

2010-2012. Research Fellow, University of Cagliari, Dept. Of Biomedical Sciences, University of Cagliari (Italy).

2008-2010. Visiting Scientist at the University of Southern California (USC), School of Pharmacy, Los Angeles (USA).

2010. Postdoctoral Fellow in Pharmacology, University of Cagliari, Dept. of Neuroscience. University of Cagliari (Italy).

2007. Postdoctoral Fellow in Neuroscience, University of Cagliari, Dept. of Neuroscience. University of Cagliari (Italy).

## B. Honors and awards

2025: Travel grant (UE- University of Cagliari) *Mobility Program ERASMUS+ (MOSTA) EXTRA-UE country*

2024-present: Travel grant ERASMUS-EDU-2024-EMJM-DESIGN; Design of a Master Erasmus Mundus programme on Chemical Exposome and Human Health : from Research to Decision (ChemExpo; Action 101180102)

2023: Travel grant SIF (Società Italiana di Farmacologia); *Master Class Leadership: Farmacologi 2.0*

2020: Travel grant SITOX; 19° Congresso Nazionale SITOX, Società Italiana di Tossicologia

2019: Travel grant Regione Sardegna; *Mobility Program for young Researcher*

2016: Young Scientist Award, Dopamine 2016, Vienna, Austria

2011-2015: Young Scientist Award, COST (European Cooperation in Science and Technology), Action CM1103, WG4 group.

2015: Young Scientist Award, 1st World Congress on Tourette Syndrome & Tic Disorders, London, UK

2010-2012: Research Fellowship, "Master and Back Program", Region of Sardinia (Italy).

2008-2010: Research Fellowship, "Master and Back Program", Region of Sardinia (Italy).

2007: Young Scientists Award (EPHAR, The Federation of European Pharmacological Societies), Summer School of Neuroscience (Italy).

### C. Principal Investigator or co-PI in funded research projects

The Michael J. Fox Foundation for Parkinson's Research  
Therapeutic Pipeline Program - Pre-Clinical - Spring 2022 Program  
Title of the Project: *Pregnenolone for the treatment of established dyskinesia in Parkinson's disease's*  
ID: 021970  
**Role: PI**

Fondazione di Sardegna  
UniCA - Progetti biennali d'Ateneo Finanziati dalla Fondazione di Sardegna - annualità 2022  
Title of the Project: *Role of the potassium-chloride transporter KCC2 on the psychotic-like (endo)phenotypes induced by sleep deprivation*  
ID: F73C23001630007  
**Role: PI**

The Michael J. Fox Foundation for Parkinson's Research  
Therapeutic Pipeline Program - Pre-Clinical - Spring 2020 Program  
Title of the Project: *Pregnenolone for the treatment of L-DOPA-induced dyskinesia in Parkinson's disease*  
18567  
**Role: Co-PI**

Fondazione di Sardegna  
UniCA - Progetti biennali d'Ateneo Finanziati dalla Fondazione di Sardegna - annualità 2017  
Title of the project: *Neurosteroids as a novel predictive biomarker associated with sleep disorders in Parkinson's disease*  
F71I17000200002  
**Role: PI**

Regione Autonoma della Sardegna  
Title of the project: *Therapeutic properties of finasteride in Tourette's Syndrome: neurochemical and molecular approaches.*  
ID: F72F16002850002  
**Role: PI**

Regione Autonoma della Sardegna  
Title of the project: *Gene-environment interaction and aggressive behavior: preclinical and clinical study on the role of the dopaminergic system and possible therapeutic target.*  
ID: RASSR32909  
**Role: Co-PI**

Regione Autonoma della Sardegna (Sardegna Ricerche)  
Proof of Concept (PoC)  
Title of the Project: *Concurrent blockade of alpha2-adrenergic and D2-dopaminergic receptors within a single molecule: a unified therapy for schizophrenia and for the motor and psychiatric symptoms of*

*Parkinson's disease.*

ID: 0005723

**Role: Co-PI**

Ministero dell'Università e della Ricerca; PNRR, Bandi a cascata MNESYS - SPOKE N. 3 - *Neuronal Homeostasis and Brain-Environment Interaction*

Title of the project: *Amphetamine-like drugs, social Stress and their Influence the homeostatis of mesocorticolimbic regions: a focus on dopaminergic and glutamatergic mechanisms of dysfunction*

**Role: Co-PI**

### **Key Personnel in funded research projects**

2023-2025: PRIN (Progetti di Rilevante Interesse Nazionale) 2022

Title of the project: *Neurodevelopmental consequences of maternal exposure to cannabis: a multidisciplinary investigation on the role of kynurenine pathway in vulnerable progeny.*

ID: 20222W4RT8

2021-2023: Fondo integrativo speciale per la ricerca (FISR)

Title of the project: *Disturbi Indotti dall'Esposizione prenatale al THC: Approccio Multidisciplinare ed Effetti di Integratori nella dieta materna*

ID: NTS-IT-625527

National Institute of Health

NIH Research Project Grant Program (R01)

Title of the Project: *Maternal THC effects on reward and neuronal activity and function*

ID: RO1DA044925-01A1

Michael J Fox Foundation, Target Validation, 2014.

Title of the project: *5-alpha-reductase Inhibition for the Treatment of Levodopa-induced Dyskinesia.*

ID: 9969

Tourette Syndrome Association.

Research grant and fellowship 2008/2009 - 2009/2010 (2nd year)

Title of the project: *Therapeutic action of 5alpha-reductase inhibitors in Tourette Syndrome.*

Role: Key Personnel

Region of Sardinia grant, Promotion of research, technology and innovation in Sardinia (2008)

Title of the project: *A new therapeutic approach for the treatment of Tourette with finasteride: preclinical and clinical studies.*

Region of Sardinia grant, Promotion of research, technology and innovation in Sardinia (2010)

Title of the project: *Role of 5-alpha reductase substrates and products underlying the therapeutic effects of finasteride.*

ID: CRP-25102, CUP-F71J11000920002

### **D. Patents and Technology Transfer**

European Patent

Title of the patent: *COMPOUND (8AR,12AS,13AS)-5,8,8A,9,10,11,12,12A,13,13A- DECAIDRO-3-METHOXY-12-(ETHYLSULPHONYL)-6H- ISOCHINO [2,1-G] [1,6] NAFTIRIDINE FOR USE IN THE TREATMENT OF PSYCHOSES | [COMPOSÉ (8AR,12AS,13AS)-5,8,8A,9,10,11,12,12A,13,13A-DÉCAHYDRO-3-MÉTHOXY-12- (ÉTHYLSULFONYL)-6H-ISOQUINO [2,1-G] [1,6] NAPHTHYRIDINE POUR UNE UTILISATION DANS LE TRAITEMENT DE PSYCHOSES]*.

ID: EP3860607B1 (EU); ES2930974T3 (Spain); IT201800009072A1 (Italy)

Inventor: Frau Roberto, Paola Devoto, Gian Luigi Gessa

## E. Peer-reviewed Publications

Scopus ID: 6602197467

ORCID ID: 0000-0002-5922-2404

Publications list: <https://www.ncbi.nlm.nih.gov/myncbi/167YifMG7yu5c/bibliography/public/>

Documents: 63

Citations (Scopus): 1821

h-Index (Scopus): 26

Scheggi S, Concas L, Corsi S, Carta M, Melis M, FRAU. Expanding the therapeutic potential of neuro(active)steroids: a promising strategy for hyperdopaminergic behavioral phenotypes. *Neurosci Biobehav Rev.* 2024 Sep;164:105842. doi: 10.1016/j.neubiorev.2024.105842.

Bourque M, Morissette M, Isenbrandt A, Giatti S, Melcangi RC, Carta M, FRAU R, Bortolato M, Soulet D, Di Paolo T. Effect of 5-alpha reductase inhibitors in animal models of Parkinson's disease. *Front Neuroendocrinol.* 2024 Oct;75:101156. doi: 10.1016/j.yfrne.2024.101156.

Fattore L, FRAU R, Sanna F. Editorial: Multidimensional interplay of early-life events, neuroactive steroids and sex in the development of psychopathology and psychiatric disorders, volume II. *Front Behav Neurosci.* 2024 Jan 15;18:1360064. doi: 10.3389/fnbeh.2024.1360064.

FRAU R, Traccis F, Concas L, Cadeddu R, Mosher LJ, Nordkild P, Gaikwad NW, Bortolato M. Prefrontal allopregnanolone synergizes with D1 receptor activation to disrupt sensorimotor gating in male Sprague-Dawley rats. *Psychopharmacology (Berl).* 2023 Jun;240(6):1359-1372. doi: 10.1007/s00213-023-06375-x.

Bratzu J, Ciscato M, Pisanu A, Talani G, FRAU R, Porcu P, Diana M, Fumagalli F, Romualdi P, Rullo L, Trezza V, Ciccocioppo R, Sanna F, Fattore L. Communal nesting differentially attenuates the impact of pre-weaning social isolation on behavior in male and female rats during adolescence and adulthood. *Front Behav Neurosci.* 2023 Oct 17;17:1257417. doi: 10.3389/fnbeh.2023.1257417.

Serra V, Aroni S, Bortolato M, FRAU R, Melis M. Endocannabinoid-dependent decrease of GABAergic transmission on dopaminergic neurons is associated with susceptibility to cocaine stimulant effects in pre-adolescent male MAOA hypomorphic mice exposed to early life stress. *Neuropharmacology.* 2023 Aug 1;233:109548. doi: 10.1016/j.neuropharm.2023.109548.

Corsi S, Scheggi S, Pardu A, Braccagni G, Caruso D, Cioffi L, Diviccaro S, Gentile M, Fanni S, Stancampiano R, Gambarana C, Melcangi RC, FRAU R\*, Carta M\*. Pregnenolone for the treatment of L-DOPA-induced dyskinesia in Parkinson's disease. *Exp Neurol.* 2023 May;363:114370. doi: 10.1016/j.expneurol.2023.114370. Epub 2023 Mar 5. Erratum in: *Exp Neurol.* 2024 Mar;373:114640.

doi: 10.1016/j.expneurol.2023.114640.

(\* , Authorship condivisa alla pari)

FRAU, Melis M. Sex-specific susceptibility to psychotic-like states provoked by prenatal THC exposure: Reversal by pregnenolone. *J Neuroendocrinol.* 2023 Feb;35(2):e13240. doi: 10.1111/jne.13240.

FRAU R, Sanna F, Fattore L. Editorial: Multidimensional interplay of early-life events, neuroactive steroids and sex in the development of psychopathology and psychiatric disorders, volume 1. *Front Behav Neurosci.* 2022 Oct 24;16:1036055. doi: 10.3389/fnbeh.2022.1036055.

Margiani G, Castelli MP, Pintori N, FRAU R, Ennas MG, Pagano Zottola AC, Orrù V, Serra V, Fiorillo E, Fadda P, Marsicano G, De Luca MA. Adolescent self-administration of the synthetic cannabinoid receptor agonist JWH-018 induces neurobiological and behavioral alterations in adult male mice. *Psychopharmacology (Berl).* 2022 Oct;239(10):3083-3102. doi: 10.1007/s00213-022-06191-9. Epub 2022 Aug 9. Erratum in: *Psychopharmacology (Berl).* 2023 May;240(5):1199. doi: 10.1007/s00213-023-06353-3.

FRAU R, Devoto P, Aroni S, Saba P, Sagheddu C, Siddi C, Santoni M, Carli M, Gessa GL. The potent  $\alpha$ 2-adrenoceptor antagonist RS 79948 also inhibits dopamine D2 -receptors: Comparison with atipamezole and raclopride. *Neuropharmacology.* 2022 Oct 1;217:109192. doi: 10.1016/j.neuropharm.2022.109192.

FRAU R, Pardu A, Godar S, Bini V, Bortolato M. Combined Antagonism of 5-HT<sub>2</sub> and NMDA Receptors Reduces the Aggression of Monoamine Oxidase a Knockout Mice. *Pharmaceuticals (Basel).* 2022 Feb 10;15(2):213. doi: 10.3390/ph15020213.

Santoni M, FRAU R, Pistis M. Transgenerational Sex-dependent Disruption of Dopamine Function Induced by Maternal Immune Activation. *Front Pharmacol.* 2022 Feb 8;13:821498. doi: 10.3389/fphar.2022.821498.

Sagheddu C, Traccis F, Serra V, Congiu M, FRAU R, Cheer JF, Melis M. Mesolimbic dopamine dysregulation as a signature of information processing deficits imposed by prenatal THC exposure. *Prog Neuropsychopharmacol Biol Psychiatry.* 2021 Mar 8;105:110128. doi: 10.1016/j.pnpbp.2020.110128.

Traccis F, Serra V, Sagheddu C, Congiu M, Saba P, Giua G, Devoto P, FRAU R, Cheer JF, Melis M. Prenatal THC Does Not Affect Female Mesolimbic Dopaminergic System in Preadolescent Rats. *Int J Mol Sci.* 2021 Feb 7;22(4):1666. doi: 10.3390/ijms22041666. PMID: 33562259; PMCID: PMC7914408.

FRAU R, Miczán V, Traccis F, Aroni S, Pongor CI, Saba P, Serra V, Sagheddu C, Fanni S, Congiu M, Devoto P, Cheer JF, Katona I, Melis M. Prenatal THC exposure produces a hyperdopaminergic phenotype rescued by pregnenolone. *Nat Neurosci.* 2019 Dec;22(12):1975-1985. doi: 10.1038/s41593-019-0512-2.

Traccis F, Frau R, Melis M. Gender Differences in the Outcome of Offspring Prenatally Exposed to Drugs of Abuse. *Front Behav Neurosci.* 2020; 14:72. Published 2020 Jun 5. doi:10.3389/fnbeh.2020.00072

FRAU R, Traccis F, Bortolato M. Neurobehavioural complications of sleep deprivation: Shedding light

on the emerging role of neuroactive steroids. *J Neuroendocrinol.* 2020 Jan;32(1): e12792. doi: 10.1111/jne.12792. Epub 2019 Sep 30.

FRAU R, Fanni S, Serra V, Simola N, Godar S, Traccis F, Devoto P, Bortolato M, Melis M. Dysfunctional mesocortical dopamine circuit at pre-adolescence is associated to aggressive behavior in MAO-A hypomorphic mice exposed to early life stress. *Neuropharmacology.* 2019 Feb 6. pii: S0028-3908(19)30042-5. doi: 10.1016/j.neuropharm.2019.01.032.

Godar SC, Mosher LJ, Scheggi S, Devoto P, Moench KM, Strathman HJ, Jones CM, FRAU R, Melis M, Gambarana C, Wilkinson B, DeMontis MG, Fowler SC, Coba MP, Wellman CL, Shih JC, Bortolato M. Gene-environment interactions in antisocial behavior are mediated by early-life 5-HT(2A) receptor activation. *Neuropharmacology.* 2019 Feb 1. pii: S0028-3908(19)30028-0. doi: 10.1016/j.neuropharm.2019.01.028.

Fanni S, Scheggi S, Rossi F, Tronci E, Traccis F, Stancampiano R, De Montis MG, Devoto P, Gambarana C, Bortolato M, FRAU R\*, Carta M\*. 5alpha-reductase inhibitors dampen L-DOPA-induced dyskinesia via normalization of dopamine D1-receptor signaling pathway and D1-D3 receptor interaction. *Neurobiol Dis.* 2018 Sep 24; 121:120-130.

(\* , Authorship condivisa alla pari)

De Felice M, Melis M, Aroni S, Muntoni AL, Fanni S, FRAU R, Devoto P, Pistis M. The PPAR $\alpha$  agonist fenofibrate attenuates disruption of dopamine function in a maternal immune activation rat model of schizophrenia. *CNS Neurosci Ther.* 2018 Nov 21. doi: 10.1111/cns.13087.

Figorilli M, Congiu P, Lecca R, Gioi G, FRAU R, Puligheddu M. Sleep in Parkinson's Disease with Impulse Control Disorder. *Curr Neurol Neurosci Rep.* 2018 Aug 11;18(10):68. doi: 10.1007/s11910-018-0875-x.

FRAU R, Bortolato M. Repurposing steroidogenesis inhibitors for the therapy of neuropsychiatric disorders: Promises and caveats. *Neuropharmacology.* 2018 May 11. pii: S0028-3908(18)30232-6. doi: 10.1016/j.neuropharm.2018.05.013. [Epub ahead of print] Review. PubMed PMID: 29907425.

FRAU R, Bini V, Soggiu A, Scheggi S, Pardu A, Fanni S, Roncada P, Puligheddu M, Marrosu F, Caruso D, Devoto P, Bortolato M. The Neurosteroidogenic Enzyme 5 $\alpha$ -Reductase Mediates Psychotic-Like Complications of Sleep Deprivation. *Neuropsychopharmacology.* 2017 Oct;42(11):2196-2205. doi: 10.1038/npp.2017.13.

FRAU R, Savoia P, Fanni S, Fiorentini C, Fidalgo C, Tronci E, Stancampiano R, Meloni M, Cannas A, Marrosu F, Bortolato M, Devoto P, Missale C, Carta M. The 5-alpha reductase inhibitor finasteride reduces dyskinesia in a rat model of Parkinson's disease. *Exp Neurol.* 2017 May; 291:1-7. doi: 10.1016/j.expneurol.2017.01.012.

FRAU R, Mosher Laura J., Bini Valentina, Pillolla Giuliano, Pes Romina, Saba Pierluigi, Fanni Silvia, Devoto Paola, Bortolato Marco (2016). The neurosteroidogenic enzyme 5alpha-reductase modulates the role of D1 dopamine receptors in rat sensorimotor gating. *PSYCHONEUROENDOCRINOLOGY*, vol. 63; p. 59-67, ISSN: 0306-4530, doi: 10.1016/j.psyneuen.2015.09.014

Melis M, FRAU R, Kalivas PW, Spencer S, Chioma V, Zamberletti E, Rubino T, Parolaro D. New vistas

on cannabis use disorder. *Neuropharmacology*. 2017 Sep 15; 124:62-72. doi: 10.1016/j.neuropharm.2017.03.033.

FRAU R, Abbiati F, Bini V, Casti A, Caruso D, Devoto P, Bortolato M (in stampa). Targeting neurosteroid synthesis as a therapy for schizophrenia-related alterations induced by early psychosocial stress. *SCHIZOPHRENIA RESEARCH*, ISSN: 0920-9964, doi: 10.1016/j.schres.2015.04.044

Mosher LJ\*, FRAU R\*, Pardu A, Pes R, Devoto P, Bortolato M (in stampa). Selective activation of D1 dopamine receptors impairs sensorimotor gating in Long-Evans rats. *BRITISH JOURNAL OF PHARMACOLOGY*; p. n/a-n/a, ISSN: 0007-1188, doi: 10.1111/bph.13232  
(\* , Authorship condivisa alla pari).

Luchicchi A, Lecca S, Melis M, De Felice M, Cadeddu F, FRAU R, Muntoni AL, Fadda P, Devoto P, Pistis M. Maternal Immune Activation Disrupts Dopamine System in the Offspring. *Int J Neuropsychopharmacol*. 2016 Jul 5;19(7). pii: pyw007. doi: 10.1093/ijnp/pyw007.

Devoto P, Fattore L, Antinori S, Saba P, FRAU R, Fratta W, Gessa GL (in stampa). Elevated dopamine in the medial prefrontal cortex suppresses cocaine seeking via D1 receptor overstimulation. *ADDICTION BIOLOGY*; p. n/a-n/a, ISSN: 1369-1600, doi: 10.1111/adb.12178

Devoto P, Flore G, Saba P, FRAU R, Gessa GL (2015). Selective inhibition of dopamine-beta-hydroxylase enhances dopamine release from noradrenergic terminals in the medial prefrontal cortex. *BRAIN AND BEHAVIOR*, vol. 5; p. n/a-n/a, ISSN: 2162-3279, doi: 10.1002/brb3.393

FRAU R, Bini V, Pillolla G, Malherbe P, Pardu A, Thomas AW, Devoto P, Bortolato M (2014). Positive allosteric modulation of GABAB receptors ameliorates sensorimotor gating in rodent models. *CNS NEUROSCIENCE & THERAPEUTICS*, vol. 20; p. 679-684, ISSN: 1755-5930, doi: 10.1111/cns.12261

FRAU R, Bini V, Pes R, Pillolla G, Saba P, Devoto P, Bortolato M (2014). Inhibition of 17alpha-hydroxylase/C17,20 lyase reduces gating deficits consequent to dopaminergic activation. *PSYCHONEUROENDOCRINOLOGY*, vol. 39; p. 204-213, ISSN: 0306-4530, doi: 10.1016/j.psyneuen.2013.09.014

Bortolato M, Bini V, FRAU R, Devoto P, Pardu A, Fan Y, Solbrig MV (2014). Juvenile cannabinoid treatment induces frontostriatal gliogenesis in Lewis rats. *EUROPEAN NEUROPSYCHOPHARMACOLOGY*. Vol. 24; p. 974-85. doi: 10.1016/j.euroneuro.2013.12.011.

Stancampiano R, FRAU R, Bini V, Collu M, Carta M, Fadda F, Bortolato M. (2013). Chronic tryptophan deprivation attenuates gating deficits induced by 5-HT1A, but not 5-HT2 receptor activation. *EUROPEAN NEUROPSYCHOPHARMACOLOGY*, vol. 23; p. 1329-1335, ISSN: 0924-977X, doi: 10.1016/j.euroneuro.2012.10.009

Bortolato M, FRAU R, Godar SC, Mosher LJ, Paba S, Marrosu F, Devoto P (2013). The implication of neuroactive steroids in Tourette syndrome pathogenesis: a role for 5alpha reductase? *JOURNAL OF NEUROENDOCRINOLOGY*, vol. 25; p. 1196-1208, ISSN: 0953-8194, doi: 10.1111/jne.12066

FRAU R, Pillolla G, Bini V, Tambaro S, Devoto P, Bortolato M. (2013). Inhibition of 5a-reductase attenuates behavioral effects of D(1)-, but not D(2)-like receptor agonists in C57BL/6 mice.

PSYCHONEUROENDOCRINOLOGY, vol. 38; p. 542-551, ISSN: 0306-4530, doi: 10.1016/j.psyneuen.2012.07.014

Melis M, Scheggi S, Carta G, Madeddu C, Lecca S, Luchicchi A, Cadeddu F, FRAU R, Fattore L, Fadda P, Ennas MG, Castelli MP, Fratta W, Schilstrom B, Banni S, De Montis MG, Pistis M (2013). PPARalpha regulates cholinergic-driven activity of midbrain dopamine neurons via a novel mechanism involving  $\alpha 7$  nicotinic acetylcholine receptors. THE JOURNAL OF NEUROSCIENCE, vol. 33; p. 6203-6211, ISSN: 0270-6474, doi: 10.1523/JNEUROSCI.4647-12.2013

Castelli MP, Casti A, Casu A, FRAU R, Bortolato M, Spiga S, Ennas MG (2013). Regional distribution of 5 $\alpha$ -reductase type 2 in the adult rat brain: An immunohistochemical analysis. PSYCHONEUROENDOCRINOLOGY, vol. 38; p. 281-293, ISSN: 0306-4530, doi: 10.1016/j.psyneuen.2012.06.008

Devoto P, FRAU R, Bini V, Pillolla G, Saba P, Flore G, Corona M, Marrosu F, Bortolato M (2012). Inhibition of 5  $\alpha$ -reductase in the nucleus accumbens counters sensorimotor gating deficits induced by dopaminergic activation. PSYCHONEUROENDOCRINOLOGY, vol. 37; p. 1630-1645, ISSN: 0306-4530, doi: 10.1016/j.psyneuen.2011.09.018

Marongiu MF, Poddie D, Porcu S, Manchinu MF, Castelli MP, Sogos V, Bini V, FRAU R, Caredda E, Collu M, Ristaldi MS (2012). Reversible Disruption of Pre-Pulse Inhibition in Hypomorphic-Inducible and Reversible CB1 $^{-/-}$  Mice. PLOS ONE, vol. 7; p. 1-14, ISSN: 1932-6203, doi: 10.1371/journal.pone.0035013

Paba S\*, FRAU R\*, Godar SC, Devoto P, Marrosu F, Bortolato M (2011). Steroid 5  $\alpha$ -reductase as a novel therapeutic target for schizophrenia and other neuropsychiatric disorders. CURRENT PHARMACEUTICAL DESIGN, vol. 17; p. 151-167, ISSN: 1381-6128 (\*, Authorship condivisa alla pari)

Bortolato M, Devoto P, Roncada P, FRAU R, Flore G, Saba P, Pistritto G, Soggiu A, Pisanu S, Zappala A, Ristaldi MS, Tattoli M, Cuomo V, Marrosu F, Barbaccia ML (2011). Isolation rearing-induced reduction of brain 5  $\alpha$ -reductase expression: Relevance to dopaminergic impairments. NEUROPHARMACOLOGY, vol. 60; p. 1301-1308, ISSN: 0028-3908, doi: 10.1016/j.neuropharm.2011.01.013

Godar SC, Bortolato M, FRAU R., Dousti M, Chen K, Shih JC (2011). Maladaptive defensive behaviours in monoamine oxidase A-deficient mice. INTERNATIONAL JOURNAL OF NEUROPSYCHOPHARMACOLOGY, vol. 14; p. 1195-1207, ISSN: 1461-1457, doi: 10.1017/S1461145710001483

Spano MS, Fadda P, FRAU R, Fattore L, Fratta W (2010). Cannabinoid self-administration attenuates PCP-induced schizophrenia-like symptoms in adult rats. EUROPEAN NEUROPSYCHOPHARMACOLOGY, vol. 20; p. 25-36, ISSN: 0924-977X, doi: 10.1016/j.euroneuro.2009.09.004

Bortolato M, FRAU R, Piras AP, Luesu W, Bini V, Diaz G, Gessa G, Ennas MG, Castelli MP (2009). Methamphetamine induces long-term alterations in reactivity to environmental stimuli: correlation with dopaminergic and serotonergic toxicity. NEUROTOXICITY RESEARCH, vol. 15; p. 232-245, ISSN: 1029-8428, doi: 10.1007/s12640-009-9024-2

Roncada P, Bortolato M, FRAU R, Saba P, Flore G, Soggiu A, Pisanu S, Amoresano, A, Carpentieri A, Devoto P (2009). Gating deficits in isolation-reared rats are correlated with alterations in protein expression in nucleus accumbens. *JOURNAL OF NEUROCHEMISTRY*, vol. 108; p. 611-620, ISSN: 0022-3042, doi: 10.1111/j.1471-4159.2008.05806.x.

Bini V, FRAU R, Collu M, Paba S, Devoto P, Marrosu F, Bortolato M (2009). Blockade of 5-alpha reductase reduces compulsive behaviors in mice. *EUROPEAN NEUROPSYCHOPHARMACOLOGY*, vol. 19; p. S296-S297, ISSN: 0924-977X

Bortolato M, FRAU R, Orru M, Collu M, Mereu G, Carta M, Fadda F, Stancampiano R (2008). Effects of tryptophan deficiency on prepulse inhibition of the acoustic startle in rats. *PSYCHOPHARMACOLOGY*, vol. 198; p. 191-200, ISSN: 0033-3158, doi: 10.1007/s00213-008-1116-9

Bortolato M, FRAU R, Orrù M, Bourov, Marrosu F, Mareu G, Devoto P, Gessa GL (2008). Antipsychotic-Like Properties of 5-alpha-Reductase Inhibitors. *NEUROPSYCHOPHARMACOLOGY*, vol. 33; p. 3146-3156, ISSN: 0893-133X, doi: 10.1038/npp.2008.39

FRAU R, Orrù M, Puligheddu M, Gessa GL, Mereu G, Marrosu F, Bortolato M (2008). Sleep deprivation disrupts prepulse inhibition of the startle reflex: reversal by antipsychotic drugs. *INTERNATIONAL JOURNAL OF NEUROPSYCHOPHARMACOLOGY*, vol. 11; p. 947-955, ISSN: 1461-1457, doi: 10.1017/S1461145708008900

FRAU R, Orrù M, Fa M, Casti A, Manunta M, Fais N, Mereu G, Gessa G, Bortolato M (2007). Effects of topiramate on the prepulse inhibition of the acoustic startle in rats. *NEUROPSYCHOPHARMACOLOGY*, vol. 32; p. 320-331, ISSN: 0893-133X, doi: 10.1038/sj.npp.1301115

Marrosu F, FRAU R, Orru M., Puligheddu M., Bortolato M., Fa M., Barberini L., Mereu G. (2007). Levetiracetam contrasts spiking pattern activity in DBA2 absence model in a byphasic modality. *EPILEPSIA*, vol. 48; p. 54-55, ISSN: 0013-9580

Marrosu F, Bortolato M, FRAU R, Orru M, Puligheddu M, Fa M, Muroi A, Tuveri A, Mereu G (2007). Levetiracetam attenuates spontaneous spike-and-wave discharges in DBA/2J mice. *EPILEPSY RESEARCH*, vol. 75; p. 224-227, ISSN: 0920-1211, doi: 10.1016/j.eplepsyres.2007.05.008

Bortolato M, FRAU R, Orru M, Piras AP, Fa M, Tuveri A, Puligheddu M, Gessa GL, Castelli MP, Mereu G, Marrosu F (2007). Activation of GABA(B) receptors reverses spontaneous gating deficits in juvenile DBA/2J mice. *PSYCHOPHARMACOLOGY*, vol. 194; p. 361-369, ISSN: 0033-3158, doi: 10.1007/s00213-007-0845-5

Marrosu F, FRAU R, Orru M, Puligheddu M, Bortolato M, Fa M, Barberini L, Mereu, G (2006). Inverse correlation between gamma bands and spiking discharges in DBA2J mice suggest a GABAB role in behavioural performance. *AMERICAN JOURNAL OF MEDICAL GENETICS. PART B, NEUROPSYCHIATRIC GENETICS*, vol. 141B; p. 782-782, ISSN: 1552-4841

Bortolato M, FRAU R, Orru M, Casti A, Aru GN, Fa M, Manunta M, Usai A, Mereu G, Gessa GL (2006). Prenatal exposure to a cannabinoid receptor agonist does not affect sensorimotor gating in rats. *EUROPEAN JOURNAL OF PHARMACOLOGY*, vol. 531; p. 166-170, ISSN: 0014-2999, doi:

10.1016/j.ejphar.2005.12.017

Marrosu F, Santoni F, Fà M, Puligheddu M, Barberini L, Genogu F, FRAU R, Manunta M, Mereu G (2006). Beta and gamma range EEG power-spectrum correlation with spiking discharges in DBA/2J mice absence model: Role of GABA(B) receptors. *EPILEPSIA*, vol. 47; p. 489-494, ISSN: 0013-9580, doi: 10.1111/j.1528-1167.2006.00456.x

Bortolato M, FRAU R, Orrù M, Casti A, Aru GN, Fà M, Manunta M, Usai A, Mereu G, Gessa GL. Prenatal exposure to a cannabinoid receptor agonist does not affect sensorimotor gating in rats. *Eur J Pharmacol.* 2006 Feb 15;531(1-3):166-70.

Bortolato M, Aru GN, FRAU R, Orrù M, Fà M, Manunta M, Puddu M, Mereu G, Gessa GL. Kappa opioid receptor activation disrupts prepulse inhibition of the acoustic startle in rats. *Biol Psychiatry.* 2005 Jun 15;57(12):1550-8.

Bortolato M, Aru GN, Fà M, FRAU R, Orrù M, Salis P, Casti A, Luckey GC, Mereu G, Gessa GL. Activation of D1, but not D2 receptors potentiates dizocilpine-mediated disruption of prepulse inhibition of the startle. *Neuropsychopharmacology.* 2005 Mar;30(3):561-74.

Bortolato M, Aru GN, FRAU R, Orrù M, Luckey GC, Boi G, Gessa GL. The CB receptor agonist WIN 55,212-2 fails to elicit disruption of prepulse inhibition of the startle in Sprague-Dawley rats. *Psychopharmacology (Berl).* 2005 Jan;177(3):264-71. Epub 2004 Jul 28. PubMed PMID: 15290008.

Bortolato M, FRAU R, Aru GN, Orrù M, Gessa GL. Baclofen reverses the reduction in prepulse inhibition of the acoustic startle response induced by dizocilpine, but not by apomorphine. *Psychopharmacology (Berl).* 2004 Jan;171(3):322-30.

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